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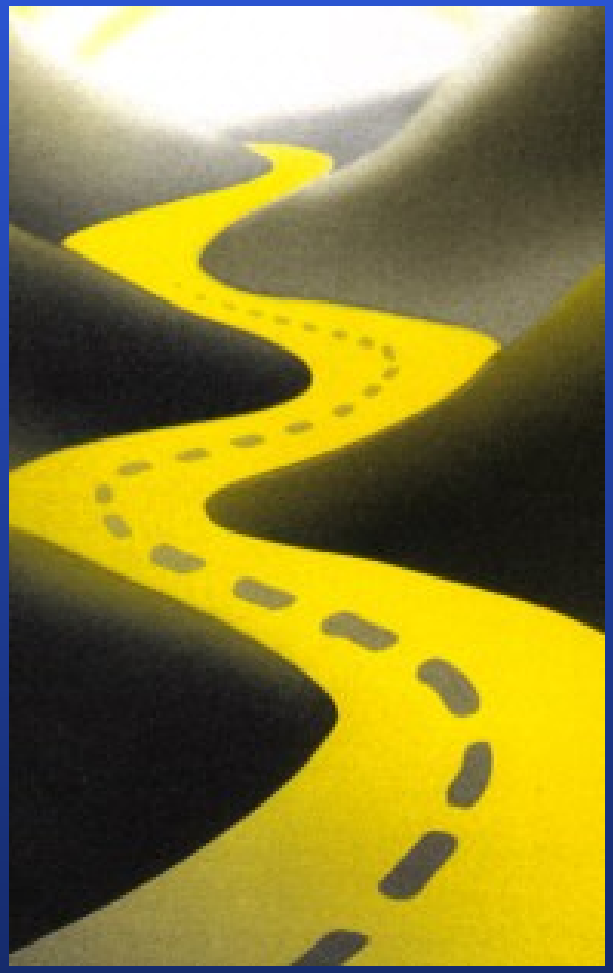
Planning Community of Practice Conference



Life After Feasibility: The Long Road to Project Completion

Lower Cape May Meadows Ecosystem Restoration

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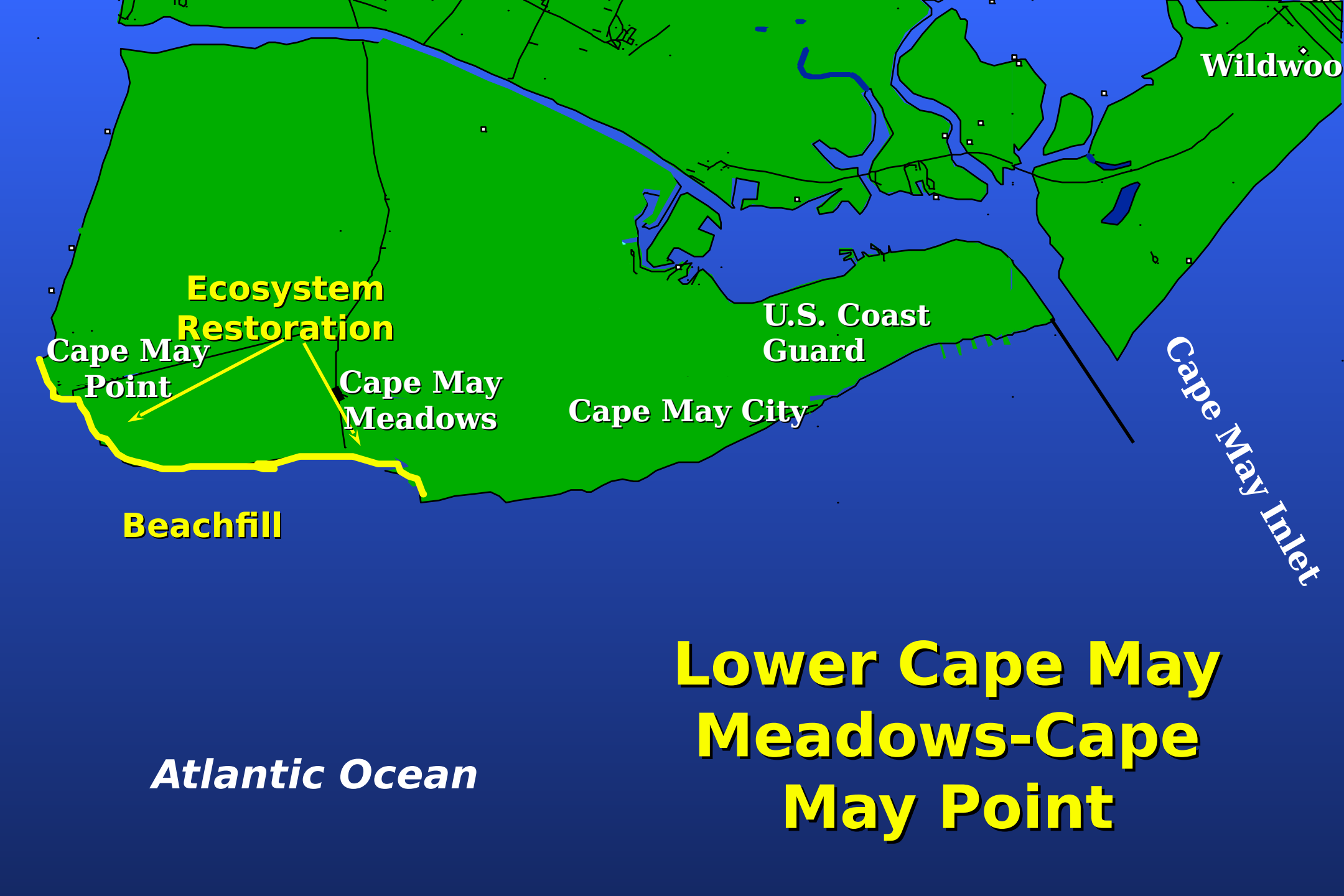
Lower Cape May Meadows Project History

- Final Feasibility Report/EIS Completed August 1998
- Phased Construction Began in September 2004
- Beachfill Components Completed in March 2005
- Environmental Restoration Activities/Construction will
  Continue Through 2007
- Adaptive Management will Continue for 5 Years
  Following the Completion of All Construction activities


Wildwoo
Ecosystem
Restoration
Cape May
Point
Cape May
Meadows
U.S. Coast
Guard
Cape May City
Cape May Inlet
Beachfill
Atlantic Ocean
Lower Cape May
Meadows-Cape
May Point

Lower Cape May Meadows Study Area

343 acre coastal freshwater wetland composed of the Cape May Point State Park & the Cape May Migratory Bird Refuge (owned by TNC)

Problem Identification

Cape May Meadows Shoreline Change
1933 - 1995

October
1991 Coastal

Selected Plan

Restoration of lost wetlands

Invasive plant control

Beachfill and periodic nourishment

Internal hydrology

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Lower Cape May Meadows Ecosystem Restoration

Potholes in the road….

- Dual property ownership and manage
- Threatened/Endangered species
- Control of invasive/exotic species
- Dynamic coastal environment
- Engineering for Ecosystem Restoratio
- Long time delay between Feasibility Phase and Construction
- Easements

Lower Cape May Meadows

Ecosystem Restoration

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Refinements of Original Design

- Order of construction
- Timing (and methods) of *Phragmites*
- Planting plan
- Reducing amount of reclaimed wetla
- Adding design features for Piping Plo
- Maintaining current dune alignment in a portion of the project area
- Elimination of salt marsh component

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Modifications to Planting Plan

- Minimized planting sch
- Phased planting activiti
- Allowed for natural revegetation
- Planted only “native” species collected on-site
- Extensive coordination with Natural Areas Council

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Modifications to Dune Alignment/Reclaimed Wetlands

- Reduced amount of reclaimed wetlands by 50%
- Planted vegetation around only one pond
- Ponds vs. wetlands…. Time will tell
- Salt or freshwater?……Time will tell
- Maintained pre-project dune alignment on TNC property
- Modified design elevation

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Modifications to Enhance Plover Nesting and Feeding Habitat

- Plover crossovers
- Lower berm eleva
- “Plover” ponds
- Modification of dune fencing/planting
- Habitat vs. Storm Protection

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Plover Crossovers

- 3 crossovers
- 100 feet wide
-1 on 10 side slope

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“Plover” Ponds

- Old dune relocated seaward
- Ponds excavated
- Minimal vegetation planted
  around 1 pond

Pond 1 – 1.4 acres

Pond 2 – 2.5 acres

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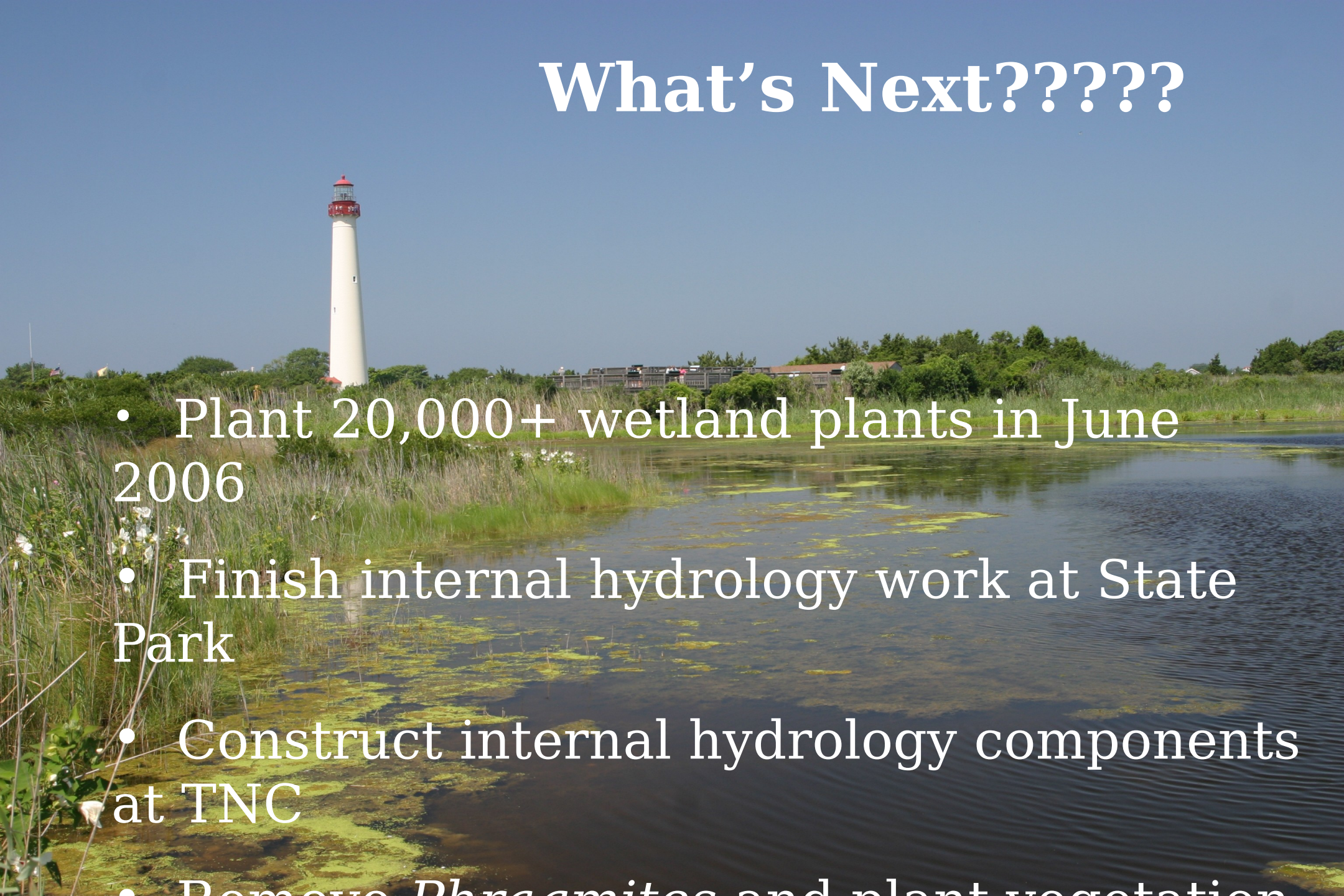
Success of Plover Design Features at Lower Cape May Meadows - 2005 Nesting Season

- **ALL** broods used new plover ponds for feeding (some exclusively)
- Plover crossovers and unvegetated dunes used by adults and chicks
- Some nesting took place on ne unvegetated dune
- 8 chicks fledged from 5 pairs

What's Next?????



- Plant 20,000+ wetland plants in June 2006
- Finish internal hydrology work at State Park
- Construct internal hydrology components at TNC
- Remove *Phragmites* and plant vegetation

Take Away Points: Navigating the Winding Road

- Coastal environment can, and will, change – plan accordingly
- Don’t assume previous coordination is adequate
- Have contingency plans for restoration components
- Plan for Threatened/Endangered Species concerns
- Coordinate design refinements/changes early and often